

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 No 8790
 Index No. 23969
 (For London Office only.)

14 JUL 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Flush Deck with a machine cargo*Port of Survey *Wunder*Date of Survey *July 1932*Name of Surveyor *Wm. J. Capman*
 Particulars of Classification *+100A1*
S.S. Don No 3-9-26 Hapag Lloyd
S.S. Don No 1-31

Ship's Name

JOSEPH PHILIP

Nationality and Port of Official Number

British Registry

123345

Gross Tonnage

623

Date of Build

1914

Moulded Dimensions: Length 170'

Breadth 30'0"

Depth 14'9" 15'00"

Moulded displacement at moulded draught = 85

cent. of moulded depth

1477

tons

Coefficient of fineness for use with Tables

795

Depth for Freeboard (D)

Moulded depth ... 14'9"

Stringer plate $\frac{1}{2}$ " ... 15'

Sheathing on exposed deck

$$T \left(\frac{L-S}{L} \right) = \text{none}$$

Depth for Freeboard (D) = 15'04"

Depth correction

(a) Where D is greater than Table depth

(D - Table depth) R =

(15'04" - 14'33") 1.307 = + 4'85"

(b) Where D is less than Table depth (if allowed)

(Table depth - D) R =

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B) 30'

Standard Round of Beam = $\frac{B \times 12}{50}$ = 7'2"

Ship's Round of Beam = 7'5"

Difference 30

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$ = $\frac{30}{4} = 7'5"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...					
Funnel enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...					

Standard Height of Superstructure

" " R.Q.D.

Deduction for complete superstructure

Percentage covered $\frac{S}{L}$ =" " $\frac{S_1}{L}$ =" " $\frac{E}{L}$ =

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction =

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	27"	1	27.00	28.25"	27.00	1	27.00
$\frac{1}{2}$ L from A.P. ...	12.01"	4	48.04	11.85"	12.01	4	48.04
$\frac{2}{3}$ L " ...	2.97"	2	5.94	2.95"	2.97	2	5.94
Amidships ...	0	4	✓	0"	✓	4	✓
$\frac{3}{4}$ L from F.P. ...	5.94"	2	11.88	5.91"	5.91	2	11.82
$\frac{1}{2}$ L " ...	24.03"	4	96.12	23.7"	23.70	4	94.80
F.P. ...	54"	1	54.00	54.0"	54.00	1	54.00
Total ...			242.98				241.60

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{1.38}{18} \times 75 = +0.6"$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 15'04"

Summer freeboard = 2'29"

Moulded draught (d) = 12'75"

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 3'19" $3\frac{1}{4}$ "

Addition for Winter North Atlantic Freeboard (if required) = 2"

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 1484$

Tons per inch immersion at summer load water line

T = 764 10.5

Deduction = $\frac{\Delta}{40T}$ inches= $\frac{1484}{40 \times 764} = 3\frac{1}{2}$ "

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

 $\frac{68 \times 795}{136} = \frac{1475}{136}$

18.30 + (1.5 x 1.7)

20.85

22.61

Depth Correction ... 4'85"

Deduction for superstructures ... -

Sheer correction06

Round of Beam correction08

Correction for Thickness of Deck amidships ... -

Other corrections, scantlings, etc. ... -

Summer Freeboard = 27'44"

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Weat, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ... 6'2"

Fresh Water Line " " ... 3'2"

Tropical Line " " ... 3'2"

Winter Line below " " ... 3'2"

Winter North Atlantic Line " " ... 5'4"

Tropical Fresh Water Freeboard ... 2'32"

Fresh Water " " ... 1'83"

Tropical " " ... 1'43"

Winter " " ... 2'05"

Winter North Atlantic " " ... 2'83"



PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway				OVER AFTER STORE ROOM		OVER FORWARD STORE ROOM				
Dimensions of Hatchway				3' x 2'		3' x 2'				
COAMINGS	{	Height above Deck	...	18"		18"				
		Thickness	Sides	...	37		37			
			Ends	...	37		37			
		Stiffeners	none		none			
		Brackets, Stays			
HATCH BEAMS	{	Number	...							
		Spacing	...							
		Scantling and Sketch	...							
		Bearing Surface	...	none		none				
FORE AND AFTERS	{	Number	...							
		Spacing	...							
		Unsupported Lengths	...							
		Scantling* and Sketch	...	none		none				
		Bearing Surface	...							
HATCH COVERS	{	Material	...	White Pine		White Pine				
		Thickness	...	2 1/2"		2 1/2"				
		How fitted	...	Shutships		Shutships				
		Bearing Surface	...	1 1/2"		1 1/2"				
Spacing of Cleats				...	22" x 6"		22" x 6"			
Number of Tarpaulins				...	Two		Two			

*Are wood fore and afters steel shod at all bearing surfaces? ✓

Are battens and wedges efficient and in good condition? *yes*

Are tarpaulins in good condition and in accordance with rule requirements? *yes*

Are lashings provided in accordance with rule requirements? ✓

Particulars of fiddle, funnel and ventilator coamings:—

Engine skylights on engine casings constructed of steel with steel flaps & hinged steel covers. ² Is removed & attached

Sidely grating on boiler casing protected by bridge but not fitted with covers

Ventilators to engine room & stokehold on casing top strongly constructed & in good condition

Particulars of Flush Bunker Scuttles:—

out *Two flush bunker scuttles each side 15" diameter on freeboard deck in way of boiler casing (Marked ③) Curves of cast iron substantially constructed & fastened by means of a lagged gant*

Particulars of Companionways:—

Two steel companion each 6'0" high x 2'6" wide x 4'0" on fwd end of freeboard deck leading to engine quarters. Sill 12" above deck. Steel doors, ^{2 1/4"} operated from both sides. Companion to E.R. built on port side of engine casing 6'0" high from deck with teak wood door 2' x 4' operated from both sides

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— *On freeboard deck:— Two swan neck ventilators to 3rd store 4 1/2" diameter x 1'6" high to three funnel ventilators 8" dia x 2'6" high & three mushroom ventilators 8" dia x 2'6" high to engine quarters. Four swan neck ventilators to side tanks 4" diameter x 1'6" high. Two swan neck vents to side bunkers 4" diameter x 1'6" high. Two swan neck ventilators 4" dia x 1'6" high to after store*

Satisfactory means of closing provided for all ventilators & air pipes

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

On freeboard deck:— One swan neck air pipe to Fore Peak 5 1/2" diameter x 6" high. Four swan neck air pipes 5 1/2" diameter x 6" high to side tanks 1 1/2"

Particulars of Gangway Cargo and Coaling Ports:— *None*



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Particulars of Scuppers and Sanitary Discharge Pipes:—

On after end of bulwark deck. Three scuppers each side 4"x3" cut in bulwark Rail
Two 4" w.c. soil pipes fitted with brass automatic stop valves on ship's side & V trap

Particulars of Side Scuttles:—

In curve space forward & aft each side 9" diameter fitted with hinged iron deadlight

Particulars of Guard Rails:—

At Sid & aft end of vessel steel bulwark plate 3'0" with open stanchions spaced 4'9" apart
In way of hopper stanchions 3'0" high spaced 4'9" apart & fitted with rope rail

Particulars of Gangways, Lifelines, etc.:—

Substantially constructed gangway leading from centre of bridge to forward end of hopper 7'0" high supported from hopper girders 2'6" wide with rails each side 3'0" high consisting of stanchions spaced 5'0" apart & chain rails

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well ...	56'	3'0"	3'4" x 2'0"	1	9'6"	12.1 sq ft
Forward Well ...	✓	✓	3'0" x 1'0"	1		
			None open rails			

State position of each freeing port

(F. and A. position and height above deck edge)

After Well:— From bridge 12' & 33' rails 4" high
Forward Well:—

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—

Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...	✓							
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ...	✓							
Bridge, Forward Bulkhead ...	✓							
Forecastle Bulkhead ...	✓							
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	18" x 30"	30	3 x 3" x 37"	30"	20 x 16 x 37	2'0" x 4'0"	18"	Bulwark 7'0" Rails 4'0"
Exposed Machinery Casings on Superstructure Decks ...								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...								
Deckhouses on Flush Deck Ships ...								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

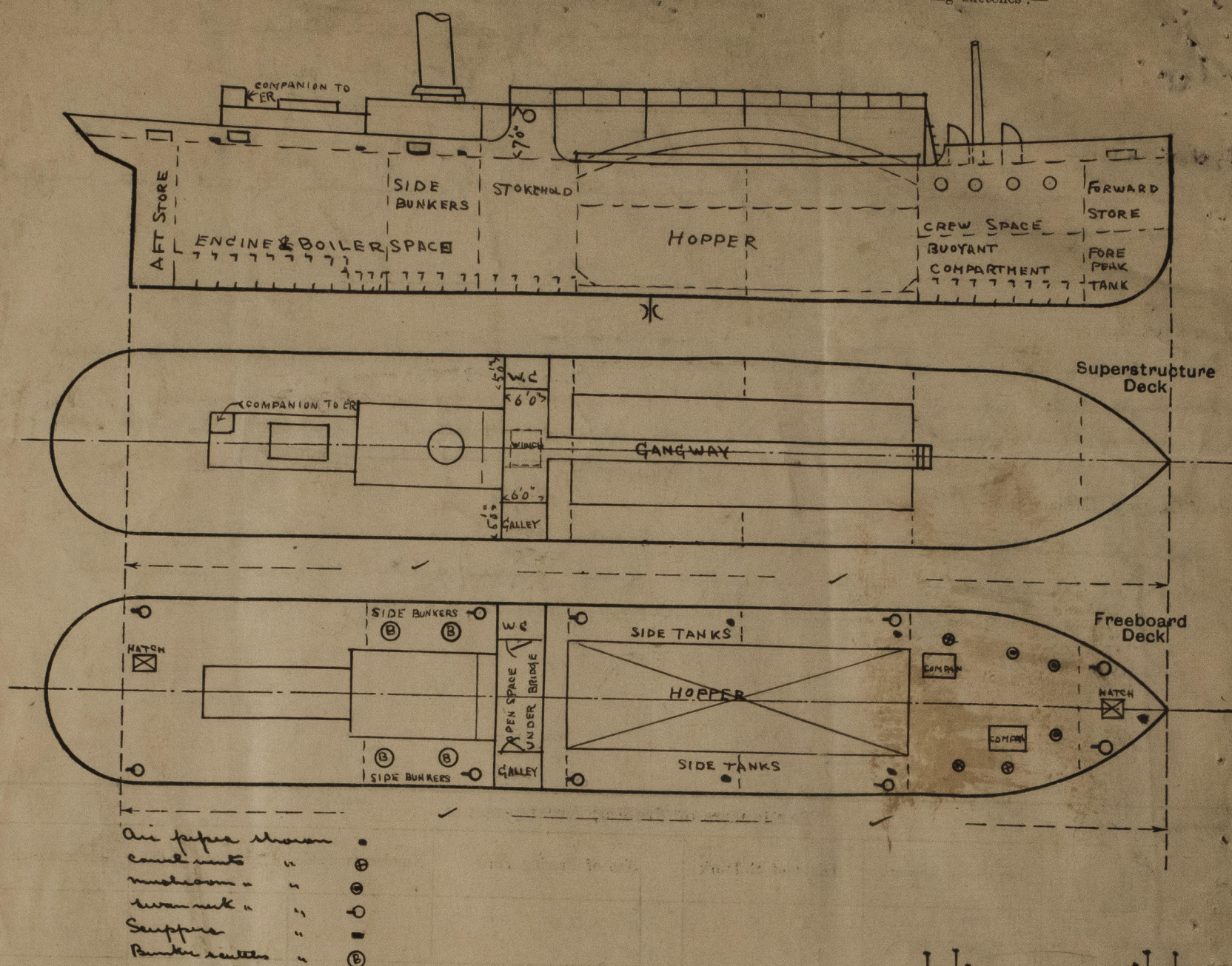
Poop Bulkhead ...	✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ...	✓
Bridge, Forward Bulkhead ...	✓
Forecastle Bulkhead ...	✓
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Steel doors to Sidely & Tack door to E.R. all operated from both sides 2'0" x 4'0"
Exposed Machinery Casings on Superstructure Decks ...	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓
Deckhouses on Flush Deck Ships ...	✓



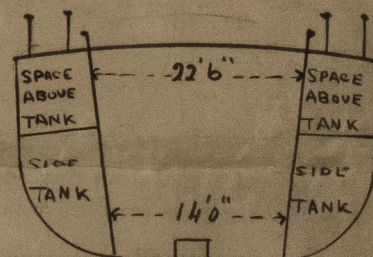
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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—Hopper space amidships 57' x 22'6" as per sketch



Vessel surveyed afloat & examination confined to measurement. This vessel is usually engaged in the River Tay & sails between the Dundee docks & outside the River mouth.

Builder's name and yard number *Leeming & Ferguson Paisley*

Names of sister ships —

Owners *Trustee of the Harbour of Dundee*

Fee £ *6* : *16* : *0* Received by me



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